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10/040,851	12/28/2001	John N. Kesler	30826-1001	2797

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EXAMINER

VEILLARD, JACQUES

ART UNIT	PAPER NUMBER
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2165

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/040,851

Applicant(s)

KESLER, JOHN N.

Examiner

Jacques Veillard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12, 14-19 and 21 is/are rejected.
- 7) ☒ Claim(s) 6, 13, and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to the Applicant's amendment filed on 9/20/2004.
2. Claims 1, 8, and 15 have been amended.
3. The rejections under 35 U. S. C. 112, second paragraph and 35 U. S. C. 101 have been withdrawn upon the Applicant's amendment.

### ***Response to Arguments***

4. Applicant's arguments filed on 9/20/2004 with respect to claims 1, 8, and 15 have been fully considered but they are not persuasive. (See Examiner remarks).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 5, 8, 9, 12, 15, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson et al. (U. S. Pat. No. 6,631,519) and Heubner et al. (U. S. Pat. No. 6,101,502).

As per claim 1, Nicholson et al. disclose "an automated generation of schema and interface" by providing a system directed to a software development environments, which automatically generates schemas and schemas interface methods (See Nicholson et al. Title and Abstract). In Particular, Nicholson et al. disclose the claimed limitations of "utility software

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extracting schema information from the relational database and automatically generating corresponding schema and graphical user interface” by providing a component generator (210) that traverses the collection classes and generates computer program source code defined in the schema definition data, including a command line interpreter (201), which provides a mechanism for the schema generator (210) to receive a command line from either a user or a script, ..., a graphical user interface allows the schema generator (210) to be run as part of scripted build process without user intervention (See Nicholson et al. Abstract, col.2, lines 20-32, col.5, line 39 through col.6, line 48, and col.col.9, lines 40-50), “a metadata stored in a repository” by providing a database for persistent storage of the objects (See Nicholson Abstract, and col.2, lines 27-32, col.6, lines 20-24, and col.7, lines 24-32).

It is noted, however, Nicholson et al. did not specifically disclose the claimed limitations of “user interface software automatically developing from the metadata a user interface appropriate to the relational database”. On the hand, Heubner et al. disclose an object model mapping and runtime engine for employing relational database with object oriented software (See Heubner Title and Abstract) including the features of “user interface software automatically developing from the metadata a user interface appropriate to the relational database” (See Heubner et al. col.1, line 56-through col.2, line 5, and col.5, lines 62 through col.6, line 7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the object model mapping and runtime engine for employing relational database with object oriented software of Heubner by incorporating the automated schema and interface generation mechanism taught by Nicholson. The motivation being to have enhanced the system

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of Heubner by allowing it to generate schemas and interfaces automatically (See Nicholson col.5, lines 48-56).

As per claims 8 and 15, most of the claimed limitations of these claims have been noted in the rejection of claim 1. Applicant's attention is directed to the rejection of claim 1 above. Therefore, they are rejected on similar grounds corresponding to the arguments given for the rejected claim 1 above.

As per claims 2, 9, and 16, the combination of Nicholson et al. and Heubner et al., as modified, discloses the claimed limitations of "wherein said schema and user interface metadata comprise entities, entity fields, entity relationships, and entity search paths" (See Nicholson et al. Fig.3, and corresponding text).

As per claims 5, 12, and 19, the combination of Nicholson et al. and Heubner et al., as modified, discloses the claimed limitations of "wherein said schema and user interface metadata additionally comprises platform attributes for; abstracting syntactic differences between database implementations" (See Nicholson et al. col.10, lines 3-65).

7. Claims 3, 4, 7, 10, 11, 14, 17, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson et al. (U. S. Pat. No. 6,631,519) and Heubner et al. (U. S. Pat. No. 6,101,502) as applied to claims 1, 8, and 15 above, and further in view of Althoff et al. (U. S. Pat. No. 6,374,252).

As per claim 3, most the limitations of the claim have been noted in the rejection of claim 2. Applicant's attention is directed to the rejection of claim 2 above.

It is noted, however, the combination of Nicholson et al. and Heubner et al., as modified, did not specifically disclose the claimed limitations of "wherein said schema and user interface metadata comprise entity relationships comprising one-to-many, many-to-one, and many-to-many relationships" as recited in claim 3. On the other hand, Althoff et al. disclose a method for modeling of object-oriented database structure wherein the user may create, edit, and manipulate a user's object database including the claimed limitations of "wherein said schema and user interface metadata comprise entity relationships comprising one-to-many, many-to-one, and many-to-many relationships"(See Althoff et al. Abstract, and col.4, lines 5-22).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination teachings of Nicholson et al. and Heubner et al. by the method for modeling of object-oriented database structure taught by Althoff et al. because Althoff et al. provide a meta model system comprises a set of classes, objects and relationships between them. These relationships may comprise an inheritance relationship or a data-model relationship (such as a one-to-one, one-to-many or many-to-many relationship) allowing the combination of Nicholson et al. and Heubner et al. to manipulate objects data efficiently. (See Althoff et al. col.3, lines 24-44).

As per claims 10 and 17, most of the limitations of these claims have been noted in the rejection of claim 3. Applicant's attention is directed to the rejection of claim 3 above. Therefore,

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they are rejected on similar grounds corresponding to the arguments given for the rejected claim 3 above.

As per claims 4, 11, and 18, the combination of Nicholson et al., Heubner et al. and Althoff et al., as modified, discloses the claimed limitations of “wherein said automatically developed user interface comprises context menus specific to type of entity relationship” (See Althoff et al. col.4, lines 44-56, and col.6, line 55 through col.7, line 6).

As per claims 7, 14, and 21, the combination of Nicholson et al., Heubner et al. and Althoff et al., as modified, discloses the claimed limitations of “wherein said utility software refreshes said metadata after schema changes are made to the relational database”(See Althoff et al. col.11, lines 20-46).

***Allowable Subject Matter***

8. Claims 6, 13, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The prior art taken alone or in combination fail to teach or suggest a method or system additionally comprising software permitting addition of non-automatically-generated

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functionality to said developed user interface selected from the group consisting of scripts, external components, business rules, and triggers as recited in claims 6, 13, and 20.

***Examiner's Remarks***

10. Applicant(s) asserted (page 5) that neither Nicholson et al. nor Heubner et al. disclose the use of a graphical user interface. The examiner disagrees with the precedent assertion.

The examiner kindly submits that the applicant(s) misread the applied references used in the rejection. However, when read and analyzed in light of the specification, the invention as claimed does not support applicant's assertion. Actually, applicant(s) is/are interpreting the claims very narrow without considering the broad teaching of the references used in the rejection. Assertion wherein the Graphical User Interface is not supported by the cited references regard to the invention of claims 1, 8, and 15 was not unsupported by objective factual evidence and was not found to be of substantial evidentiary value. Applicant(s) should duly note that Nicholson et al. directed to a software development environments, which automatically generates schemas and schema interface methods. Furthermore, Nicholson et al. provide the use of a command line interpreter that provides a mechanism for the schema generator to receive a command line from either a user or a script. Nicholson et al. System, however, disclose the use of graphical user interface that allows the schema generator to be run as part of a scripted build process without requiring user intervention (See Nicholson et al. col.5, lines 39-44). Applicant(s) assertions are just mere allegation with no support fact. Therefore, the 103 rejection is hereby sustained.



***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques Veillard whose telephone number is (571) 272-4086. The examiner can normally be reached on Mon. to Fri. from 9 Am to 4:30 PM, alt. Fri. off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272- 4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**CHARLES RONES**  
**PRIMARY EXAMINER**



Jacques Veillard  
Patent Examiner TC 2100

January 6, 2005